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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,993	06/11/2001	David Rozenshtein	03433.00025	1837

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EXAMINER

BLACK, LINH

ART UNIT PAPER NUMBER

2167

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/876,993	<b>Applicant(s)</b> ROZENSHTAIN ET AL.	
	<b>Examiner</b> LINH BLACK	<b>Art Unit</b> 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 11, 16, 21, 26, 31-54 is/are rejected.
- 7) ☒ Claim(s) 7, 17 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

1. This communication is in response to the Applicants' document dated September 30, 2004. Claims 2-5, 8-10, 13-15, 18-20, 23-25, and 28-30 are cancelled. New claims 31-54 are added. Claims 1, 6, 11, 16, 21, 26 are independent claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 11, 21, 31, 39, 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaitzblit (US 2002/0007363).

2. Vaitzblit anticipated the independent claims 1, 11, 21 by the following:

storing data in a database; sequentially performing a plurality of loads to said database  
– paragraphs 0008-0009; fig. 2, element 50.

undoing at least one of said plurality of loads, wherein the undone load is a load  
performed prior to a most recent load performed to said database; wherein the resulting  
content of the database reflects the data as if the undone load had not been performed  
– paragraphs 0008, 0018, 0036.

3. Vaitzblit anticipated claims 31, 39, and 47 by the following:

(4) reconstructing a load sequence of said database as it existed prior to step (3),  
wherein, subsequent to step (3), the resulting content of the database reflects the data  
as if the undone load had not been performed; and subsequent to step (4), the resulting  
content of the database reflects the data as if the one of said plurality of loads had been  
performed - pars. 0008, 0036-0037, 0080, and 0086.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 16, 26, 32-35, 38, 40-43, 46, 48-51, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaitzblit (US 2002/0007363), and further in view of Buchanan (US 5758355).

4. As per independent claims 6, 16, 26, Vaitzblit teaches storing data in a database; sequentially performing a plurality of loads to said database – paragraphs 0008-0009; fig. 2, element 50.

undoing at least one of said plurality of loads, wherein the undone load is a load performed prior to a most recent load performed to said database; wherein the resulting content of the database reflects the data as if the undone load had not been performed – paragraphs 0018, 0036.

wherein performing a load in step (2) comprises the steps of: inserting rows into the target with new key values; updating rows in the target table with existing key values; deleting rows from the target table – pars. 0008, 0044-0045, 0059. However, Vaitzblit does not explicitly suggest deleting rows from the target table “when a row’s key value does not exist in the load table”. Buchanan teaches deleting rows from the target table when a row’s key value does not exist in the load table – col. 12, lines 1-26; col. 18, line 59 to col. 19, line 51. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vaitzblit’s teaching with Buchanan’s teaching in order to allow the synchronization of deleting records between load table/database and target table/database.

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5. As per claims 32, 40, and 48, Vaitzblit teaches

the database comprises a target table – pars. 0021-0027 (target table: table X or table

Y). Vaitzblit does not explicitly disclose wherein the load data comprises a load table.

However, Buchanan teaches load table – col. 4, lines 44-52. Thus, it would have been

obvious to one of ordinary skill in the art at the time of the invention to combine

Vaitzblit's teaching with Buchanan's teaching in order to allow records' transactions and

the synchronization of records' transactions between tables/databases.

6. As per claims 33, 41, and 49, Vaitzblit teaches

recording information in a second table, separate from said target table, wherein

said information corresponds to each modification made to said target table – table 4,

paragraphs 0021-2223.

7. As per claims 34, 38, 42, 46, 50, and 54, Vaitzblit teaches:

reconstructing a historical state of said target table at a discrete time in said load

sequence, wherein said reconstructing is performed based at least in part on the

information in the second table – pars. 008-009, 0018-0025.

8. As per claims 35, 43, and 51, Vaitzblit teaches:

reconstructing a load sequence of said target table as it existed just before a load

retraction – pars. 0021, 0036.

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9. Claims 36-37, 44-45, 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaitzblit (US 2002/0007363), Buchanan (US 5758355), and further in view of Jain et al. (USP 5806075).
10. As per claims 36, 44, and 52, Vaitzblit and Buchanan do not explicitly show wherein a table structure of a table in a first load is different from a table structure of a table in a second load. However, Jain et al. teach storing data in a database and performing a plurality of transactions to the said database - col. 5, lines 34-44; col. 6, lines 8-29. Jain et al. teach undoing at least one of said plurality of loads - col. 21, lines 49-60. Jain et al. further suggest a target table or a database table - fig. 2c, order or inventory table; col. 6, lines 8-15; load data or data to be transmitted to the database, for example, the customer order data, are in the form of records and fields (figs. 2b-c; col. 4, lines 46-47), are transferred to the database order table. As load data are collected (when customers order items) and sent to the database in rows of fields (by insert, update, delete commands), basically, load data are kept in tables or load tables. Jain et al. teach undoing at least one of said plurality of loads wherein the resulting content of the database reflects the data as if the undone load had not been performed - col. 21, lines 49-60. Jain et al. teach wherein a table structure of a table in a first load is different from a table structure of a table in a second load - figs. 2A-2D1 ; col. 5, line 34 to col. 6, line 61 . Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to contain a customer's

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ordered items in records or a table (or load table) in order to add or update the ordered data to a target table in the database more efficiently.

11. As per claims 37, 45, and 53, Vaitzblit and Buchanan do not explicitly disclose wherein the database table rows and the load table rows are correlated via a primary key. However, Jain et al. teach "rowid information (i.e., identifier specifying a row within a table) is stored in the rowid field" - col. 10, lines 1-2. Jain et al. also teach "find row entry to be updated using primary key value" - fig. 5b1, element 524 and fig. 5c, element 564\*, fig. 2D2. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use tables' primary keys to efficiently manipulate data (by insert, update, or delete etc...) within rows of tables.

#### ***Allowable Subject Matter***

Claims 7, 17, 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.




**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on 8am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LINH BLACK  
Examiner  
Art Unit 2167

February 7, 2005



Primary Examiner

Continuation of Disposition of Claims: Claims withdrawn from consideration are (2-5, 8-10, 12-15, 18-20, 22-25, and 28-30 are cancelled).